

Bringing kitchens to life

## Next Generation Ceramic Coating Technology



## Limitations of the Currently Available Ceramic Coating in the Market

#### **Nonstick Performance**

- Cooking at high temperature makes the nonstick to diminish suddenly.
- Dishwasher detergents (high alkaline) damages the nonstick performance over time.

### **Corrosion Resistance**

• Pinhole & crack appears as salt penetrates into the coating and corrosion develops on the aluminum surface.



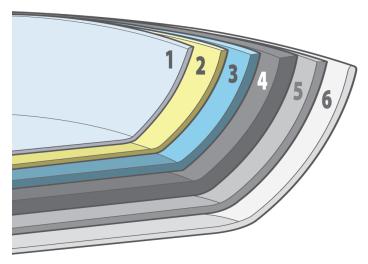
## Neoflam's Latest Technology to Address the Limitations

#### **Nonstick Performance**

- F5 ceramic coating recipes for frypan & wok
- IntelliMosaic technology for frypan & wok

#### **Corrosion Resistance**

- P5 ceramic coating recipes for pots & casserole
- SureCoat Technology to protect aluminum surface for all products



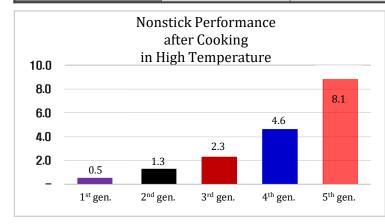
#	Name	Main Features						
1	Top Coating	Excellent non-stick performance						
2	Base Coating	Abrasion resistance						
3	Primer Coating	Protection for corrosion resistance						
4	Aluminum							
5	Base Coating	Abrasion resistance and Durability						
6	Top Coating	Easy Cleaning						

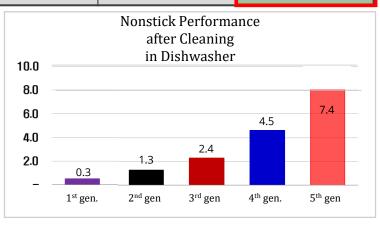


## **F5 Ceramic Coating Recipes**

#### **Improved Nonstick Performance**

	Evolution of Neoflam Coating										
	1 <sup>st</sup> gen. 2008-2011	2 <sup>nd</sup> gen. 2012-2014	3 <sup>rd</sup> gen. 2014-2015	4 <sup>th</sup> gen. 2015-2016	5 <sup>th</sup> gen. 2017~						
High Temp.*	0.5	1.3	2.3	4.6	8.1						
Dishwasher*	0.3	1.3	2.4	4.5	7.4						





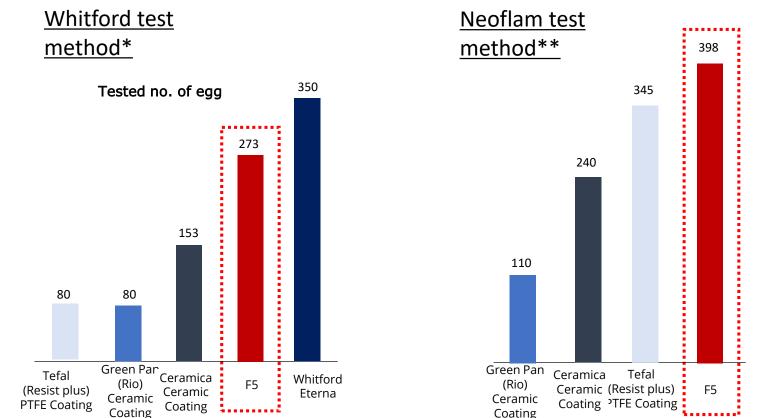
\*High temperature test: after 30min. of heating at 350 degrees, run 10 times of egg test at 190 degrees (1cycle)

\*\*Dishwasher test : after cleaning 10 times at standard mode (70mins.), run 10 times of egg test at 190 degrees (1cycle)

## **F5 Ceramic Coating Recipes**



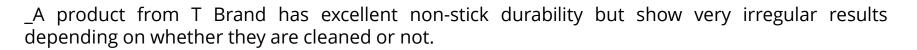
#### **Improved Nonstick Performance**



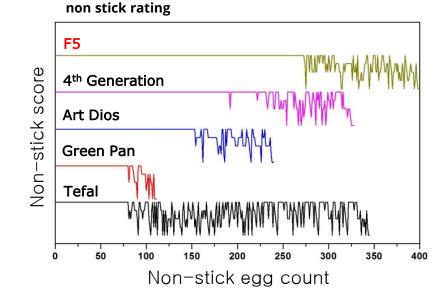
\*Whitford test method : at 175 degrees, without oil, procced frying egg test consecutively until more than 20% of the egg stick on the coating surface.

\*\*Neoflam test method : at 175 degrees, without oil, procced frying egg test consecutively, when egg start to stick on the coating surface, clean the pan and continue testing(Test is closed when function of nonstick is completely eliminated)
\*\*\* Whitford's data is not based on actual testing but from posted data as advertisement. Source) Whitford posted data E\*\*\*\*\* for Cookware-houseware coating guide-Whitford worldwide, www.whitfordww.com

## **F5 Ceramic Coating Recipes**



## <u>The F5 coating performs excellent nonstick consistency and stability compared to competitors.</u>



Graph present result according to

Average stick score per 25 times \*

	25	50	75	100	125	150	175	200	225	250	275	300	325	350	375	400
Green Pan	5	5	5	3.7	1.6											
Art Dios	5	5	5	5	5	4.5	4.2	3.6	3.5	2.6						
4 <sup>th</sup> Gen.	5	5	5	5	5	5	5	4.9	4.8	4.0	3.5	3.5	2.2			
Tefal	5	4.7	4.6	3.7	3.3	3.2	2.9	3.7	3.4	3.2	3.6	3.6	3.5	2.4		
F5	5	5	5	5	5	5	5	5	5	5	4.6	4.2	4	3.8	3.4	2.4

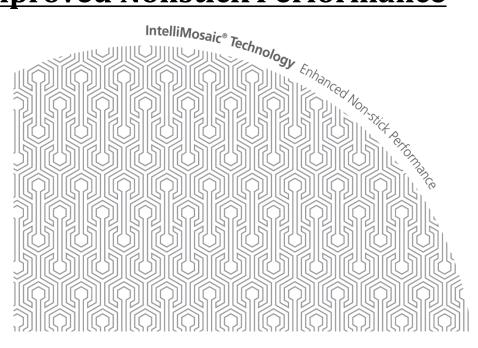
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\* 5 points: Eggs are separated from the pan without applying force. 4 points: Eggs are separated from the pan when a little force is applied. 3 points: Eggs stick to the surface of the pan in some areas. 2 points: About 20-30% Eggs attached to the pan surface, 1 point: More than half of the eggs stick on the pan surface



## **IntelliMosaic™ Technology**

#### **Improved Nonstick Performance**



#### Patent pending design

- To control oil spreading and sustaining on cooking surface.
- Developed by KITECH (Korea Institute of Industrial Technology) <u>www.kitech.re.kr</u>



## **IntelliMosaic™ Technology**

#### **Differences in oil disbursement**



Typical ceramic coating makes oil gathered on parts of the cooking surface



IntelliMosaic<sup>™</sup> technology allows even flow of oil on the cooking surface making the meal tastier and easier to cook.



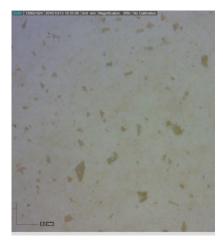
## **SureCoat™ Technology**

#### **Corrosion Resistance**

200x Image after 1,000 cycles of test



Typical ceramic coating shows pinholes and cracks



SureCoat<sup>™</sup> technlogy doesn't show any pinholes or cracks

<u>Test Method</u> – For each cycle, test solution (Salt 1.5wt%, Chili Paste 1wt%, Water 97.5wt%) is heated for 30 minutes.

# THANK YOU

